

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of Telenor Maritime, Inc. for a) Call Sign: _____
C-band and Ku-band Earth Station Onboard)
Vessel (“ESV”) Blanket License) File No. _____

APPLICATION FOR ESV BLANKET LICENSE

Pursuant to Sections 25.221 and 25.222 of the Rules of the Federal Communications Commission (the “Commission”), 47 C.F.R. §§ 25.221 and 25.222, Telenor Maritime, Inc. (“Telenor Maritime”) respectfully seeks authority to operate up to 25 Sea Tel Model 9711 earth station onboard vessel (“ESV”) terminals in the 3.7-4.2 GHz (space-to-Earth) and 5.925-6.425 GHz (Earth-to-space) bands (collectively, the “C-band”) with satellites on the Commission’s Permitted Space Station List (“Permitted List”) for operations not requiring satellite and frequency-specific coordination, and with the SES-4 satellite at 22° W.L. on previously coordinated frequencies for limited in-port operations. Telenor Maritime also seeks authority to operate the Sea Tel Model 9711 terminals and up to 25 Sea Tel Model 6012 1.5m ESV terminals (together, the “Sea Tel terminals”) in the 10.95-11.2 GHz and 11.45-11.7 GHz (space-to-Earth) (the “Extended Ku-band”),¹ and 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) bands (the “Conventional Ku-band”), with U.S.-licensed and Permitted List satellites.²

¹ For purposes of this application, the term Extended Ku-band includes only the 10.95-11.2 GHz and 11.45-11.7 GHz downlink bands and not the 13.75-14.0 GHz uplink band.

² See Permitted Space Station List (available at <https://transition.fcc.gov/ib/sd/se/permitted.html>).

The Sea Tel terminals will provide broadband maritime satellite communications services in U.S. and international waters, including to cruise ship passengers and crew. Grant of this application will serve the public interest by expanding customer choice and enhancing competition in advanced mobile broadband applications.

I. DISCUSSION

Telenor Maritime requests authority to operate two types of terminals, the Sea Tel 9711 and Sea Tel 6012. Both terminals have been previously licensed by the Commission for use in the bands requested herein.³ The Sea Tel terminals will operate in U.S. territorial and adjacent international waters, including the coastal regions of the continental United States (“CONUS”), Alaska, Hawaii, the U.S. Virgin Islands and Puerto Rico in Conventional Ku-band, Extended Ku-band and C-band frequencies.⁴

As the Commission is aware, the Sea Tel terminals are designed to meet the Commission’s ESV requirements, including: (i) maintaining off-axis EIRP within the levels set forth in the applicable FCC masks; (ii) maintaining a pointing accuracy of 0.2° or better; (iii) automatic cessation of emissions within 100 ms if pointing offset exceeds 0.5°; and (iv) not resuming transmissions until pointing accuracy is within 0.2°.⁵ Declarations of conformity with such

³ See, e.g., Astrium Services Government, Inc., File No. SES–MFS–20130504–00363 (Call Sign: KA-313) (Sea Tel 9711); see also Telesat Network Services, Inc., File No. SES-MOD-20140212-00056 (Call Sign KA399) (Sea Tel 6012).

⁴ The geographic scope of C-band ESV operations near U.S. coastal areas and offshore fixed service stations is subject to the coverage area of specific satellite points of communication coordinated in connection with the requested license.

⁵ See generally 47 C.F.R. §§ 25.221 and 25.222.

elements of the Commission's rules from the manufacturer are attached hereto.⁶ In addition to these fundamental ESV operational characteristics, Telenor Maritime will operate the Sea Tel terminals in accordance with the geographic limitations and coordination provisions in the Commission's rules designed to protect other users of the spectrum.

Conventional Ku-Band and Extended Ku-Band Operations. Telenor Maritime seeks to operate Sea Tel 9711 and Sea Tel 6012 terminals in the Conventional Ku-band and Extended Ku-band with U.S.-licensed satellites and foreign-licensed satellites on the Permitted List. The Sea Tel terminals have been previously licensed by the Commission and qualify for "routine processing" under the Commission's rules.⁷ Accordingly, grant of Permitted List authority in Conventional Ku-band and Extended Ku-band frequencies is permissible.⁸

In the Conventional Ku-band, Telenor Maritime will not operate the ESVs: (i) in the 14.0-14.2 GHz band within 125 km of the NASA TDRSS facilities in Guam, White Sands, New Mexico and Blossom Point, Maryland; or (ii) in the 14.47-14.5 GHz band within 45 km of the radio observatory in St. Croix, Virgin Islands or Mauna Kea, Hawaii or within 90 km of the Arecibo

⁶ Telenor Maritime notes that, although the FCC Declaration of Conformity cites the 2009 version of the Commission's Rules, the relevant EIRP spectral density limits and operational requirements have not changed materially (i.e., any changes, such as relaxation of a portion of the off-axis EIRP mask, make the current rules less restrictive). Thus, citation to the more restrictive, prior version of the rules is sufficient to support this request. Additionally, Telenor Maritime has confirmed with the manufacturer that the attached FCC Declaration of Conformity is current and the only version available.

⁷ See *supra* n. 3; see also Declarations of Conformity certifying compliance with Section 25.222(a)(1) of the Rules.

⁸ See 47 C.F.R. §§ 25.222(b)(7); see also Comprehensive Review of Licensing and Operating Rules for Satellite Services, *Second Report and Order*, IB Dkt. 12-167 (Dec. 17, 2015) at ¶249 ("*Part 25 Second Report & Order*") (expanding the scope of Permitted List authority to the Extended Ku-band).

Observatory in Puerto Rico, without first coordinating with the National Telecommunications Information Administration (“NTIA”) through NASA and the National Science Foundation, respectively.⁹ In the event Telenor Maritime seeks to operate the Sea Tel terminals within the above specified bands and distances, it will coordinate such operations accordingly. In the Extended Ku-band, Telenor Maritime shall not claim protection from interference from any authorized terrestrial stations to which frequencies are either already assigned, or may be assigned in the future.¹⁰

C-Band Operations. Telenor Maritime requests authority to operate the Sea Tel 9711 ESV terminal in specified conventional C-band transmit frequencies with the SES-4 satellite¹¹ in five port locations in which uplink transmissions have been previously coordinated for a period of six months.¹² Telenor Maritime expressly acknowledges that any port-area operational authority granted in connection with the license will expire with the period of the underlying temporary coordination, which is consistent with the Commission’s rules and policies governing temporary C-band receive protection in port areas in the ESV license context.¹³ Long-term coordination of ports or routes may be conducted in the future pursuant to FCC policies and procedures.

⁹ See 47 C.F.R. §§ 25.222(c), (d); *see also* Public Notice, DA 14-992 (July 11, 2014).

¹⁰ See 47 C.F.R. §§ 25.222(a)(8).

¹¹ The SES-4 satellite has been included on the Permitted List for C-band frequencies. Because the proposed C-band ESV operations with SES-4 are consistent with its U.S. market access grant and the Commission has already examined and approved the satellite’s other operational characteristics, Telenor Maritime is not providing detail information regarding the satellite.

¹² See Temporary Coordination Notices; *see also* 47 C.F.R. §25.221(a)(8), (12).

¹³ See 47 C.F.R. §§ 25.221(a)(10).

Consistent with Commission policy, Telenor Maritime also seeks Permitted List authority for Sea Tel 9711 terminal operations in the C-band not requiring satellite and frequency-specific coordination (e.g., transmit operations beyond 200km from the U.S. coastline or offshore fixed service stations and unprotected in-motion receive operations).¹⁴ In the event Telenor Maritime seeks to operate the Sea Tel terminals at specific port locations or routes within 200 km of the U.S. coastline or a U.S.-licensed offshore fixed service installation, it will perform the appropriate coordination prior to commencing operations. In the meantime, however, the Commission can include Permitted List as an authorized point of communication for Sea Tel 9711 terminal operations in C-band beyond 200 km for the U.S. coast and offshore fixed service facilities.

Other Issues. There will be a 24/7 point of contact located in the United States with the authority to cease Sea Tel terminal transmissions and the terminals will be controlled through a hub earth station located in the United States (a teleport facility located in Bristow, VA) consistent with the Sections 25.221(a)(4) and (a)(7), and 25.222(a)(4) and (a)(7), of the Commission's rules.

The attached FCC Form 312, Schedule B and associated exhibits to this application contain the relevant information required under 47 C.F.R. §§ 25.221 and 25.222 of the Commission's Rules. These materials demonstrate that, like previously authorized operation of the Sea Tel terminals, the operations proposed by Telenor Maritime are fully consistent with the Commission's two-degree spacing requirements and other rules and policies governing ESVs operations. As discussed below, grant of the requested authority is in the public interest.

¹⁴ See 47 C.F.R. §25.221(b)(7); see also *Part 25 Second Report & Order* at ¶249 n.596 (confirming routinely licensed terminals, including C-band ESVs under Section 25.221(a), are eligible for Permitted List authority). The Commission has previously granted such Permitted List authority to C-band ESV terminals. See *Harris CapRock Communications, Inc., Call Sign 060157*, File No. SES-MOD-20150915-00599 (granting Permitted List authority to C/Ku-band ESV terminal).

Public Interest Statement. Grant of the requested ESV blanket license will strongly serve the public interest. As described in the application materials, the Sea Tel terminals comply fully with the FCC's rules and policies governing ESV operations. Compliance with these rules ensures that the proposed ESV operations can be conducted without adverse effects on other users of the spectrum.

In addition, granting the requested license will allow Telenor Maritime to provide robust broadband maritime satellite communications services to a wide array of users, including communications services to cruise ships and other maritime users that are unable to obtain communications services through alternative facilities. Users will be able to utilize high-speed Internet access, corporate VPN, e-mail, voice and other services throughout U.S. and international waters. This, in turn, will expand customer choice and enhance competition in advanced mobile broadband applications.

II. CONCLUSION

Based on the foregoing, Telenor Maritime respectfully requests that the Commission grant its application for an ESV blanket license to operate the Sea Tel 9711 in the C-band with Permitted List satellites (for operations not requiring satellite and frequency-specific coordination) and with the SES-4 satellite (for previously coordinated port area operations), and to operate the Sea Tel 9711 and 6102 terminals in the Conventional Ku-band and the Extended Ku-band frequencies with Permitted List satellites (subject to compliance with exclusion zones and coordination rules), at the earliest practicable time.